UDOT STRUCTURES DIVISION
COMMENT AND RESOLUTION SHEET

CODES:
A. ACCEPT COMMENT—WILL BE CORRECTED, ADDED, OR CLARIFIED.
B. DESIGNER WILL EVALUATE.
C. DELETE COMMENT
D. DEPARTMENT TO EVALUATE.

DOCUMENT CONTROL NUMBER:	**REVIEW TYPE: DRAFT**	**REVIEWER(S): PARTICIPANTS**	**DATE: 9-3-08**
DESCRIPTION: ABC PHASE 2 WORKSHOP COMMENTS	**DESIGNER: CME**	**DISCIPLINE: CONSTRUCTION**	**CRM:**

ITEM NO.	PAGE NO.(1)	COMMENTS	CODE(2)	RESPONSE(2)	FINAL DISPOSITION(3)
1		Additional planning, coordination and scheduling are required with ABC precast components. Allow for longer lead prior to start of on-site construction. Precast elements may require a longer overall construction duration, but will reduce impact to the traveling public.	B	The design team will investigate this. There may be recommendations made to the construction staff at UDOT to consider longer lead times for project with many components.	This issue will most likely be included in an ABC bridge manual text that is to be written in final design.
2		Use standard precast elements to reduce costs and overall project time.	A	Agreed	No changes needed
3		There may need to be additional quality control measures / certification for field cast precast to meet similar standards to a precast plant.	B	The need for certification of near site casting will be studied.	UDOT is investigating this issue in detail.
4		Field and shop inspections by UDOT may need to increase when using precast elements.	B	This will be studied. Training of UDOT inspection personnel on ABC products may also be done.	Training of personnel will be done during implementation of the standards.
5		Contractor control is shifted to the shop therefore there is less control over the products.	B	This is the case with prefabrication. The general contractor is ultimately responsible for the finished product. Contractors may need to exercise more control in their approach to ABC projects. Coordination between all sub-contractors is critical to successful ABC projects.	No changes needed

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6		Tolerances may need to vary depending on the component, or bridge. i.e. straight pieces can have less tolerance than curved. Tolerances need to be specified on the plans	B	The development of standards will include recommended tolerances for all components. These will either be shown on the plans, or included in specifications.	Tolerance sheets have been developed for all critical components
7		Match casting of critical precast elements may be needed.	B	Agreed; however every attempt will be made to design for appropriate tolerance so that match casting is minimized.	Match casting has not been implemented due to higher fabrication costs. Other states have successfully built bridges without match casting.
8		Providing allowance for pour-back strips where possible.	B	The use of pour back strips will be minimized since they tend to slow down construction. There will be several details where they will be required.	Pour back strips are still proposed for some connections.
9		Tolerances on deck surfaces may need to be met by grinding, or overlay.	B	This is being studied by the design team. Overlays may be pursued if the results of recent deck grinding projects are not satisfactory.	Grinding is still proposed for deck panels.
10		Cure time is element specific. Contractors would like to see engineers evaluate critical elements for reduced cure time where appropriate.	B	Cure time is an important aspect of quality concrete production. This is being investigated. The number of components with reduced cure time will most likely be limited.	UDOT is investigating this issue in detail.

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11		Bulb Tee Girders Bulb tee girders are more difficult to form CIP deck.	B	Forming techniques will be investigated with the bulb tee.	Washington state has not experienced problems with deck forming, therefore no changes are proposed.
12		Bridge deck replacement must be considered when designing / constructing post tensioned long span girders.	B	The possibility of re-decking a post tensioned girder is being considered. This will most likely result in a single stage PT system requirement.	Single stage PT is only allowed so that the deck can be replaced in the future
13		Integral Abutments: Piling tolerances for integral abutments should be set at $\pm$3". Piles may require a template during driving.	B	Agreed	Pile driving tolerances will be revised accordingly
14		General: Is the general contractor responsible for grouting splices or a sub-contractor.	B	The answer is most likely: either. In ABC projects, there needs to be a close relationship between the general contractor and all sub-contractors. More so than on conventional construction projects.	No changes needed
15		Cantilever Abutments: Address joint between wingwall, approach slab and parapet.	B	The details for this area will be reviewed.	New details have been developed to accommodate this comment

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16		Use of weld tabs for wall alignment was recommended	B	There is a concern about the durability of welded tab connections (even if temporary). It will result in a potential future corrosion issue. Temporary weld tabs may be allowed if made with stainless steel.	No changes proposed
19		Piers: On seismic design details need to note that fixity of column may occur at grade or top of median rather than at top of footing.	B	This is more of a general design issue than an ABC issue. Design parameters are being reviewed as part of this project; therefore this may be reviewed.	No changes proposed
20		Piers: Slope top of footing away from connection point or raise connection point to direct water away from joint.	B	Corrosion protection will be investigated. This is one possible solution that will be studied.	This has been done
21		Approach slabs: Reduce width of closure pours to reduce forming time. Bear approach slab on back wall where possible. Smaller closure pour could be done with non-shrink grout. Provide TFE or other sliding surface between back wall and approach slab to provide for better sliding.	B	The joint in question will be re-worked. These comments will be considered.	New details have been developed to accommodate this comment
22		Approach slabs: Forming issues with headed studs in joint. Screw on heads may allow straight forming.	B	There is a concern with the use of threaded studs regarding the potential for future fatigue failures of the stud. This will be studied.	Threaded studs will most likely be allowed in the planned specifications

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23		Footings: Consider welding piles to a steel plate embedded in an abutment or pile cap.	B	This will be investigated.	New details for steel piles have been developed
24		Footings: Consider the use of lightweight concrete for footings to allow for smaller cranes.	B	The use of lightweight concrete is being investigated. It may be offered as a contractor option for footings.	Lightweight concrete is being considered for all elements, especially for substructure elements
25		General: Allow for optional field casting of certain elements	C	This is contrary to the goals of the Phase 2 ABC program; therefore it will most likely not be allowed.	No changes proposed

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